

PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a base-mounted cabinet at the existing Traffic Control Signal at MD 170 and Gate 1A of Northrop Grumman in Anne Arundel County. This intersection is included with the MD 162/MD 170 (Aviation Blvd) Interconnect System. The existing pole-mounted cabinet shall be removed and the service relocated.

MD 170 is assumed to run in a north-south direction.

II. INTERSECTION OPERATION

- The intersection will continue to operate in a NEMA four-phase, semi-actuated mode. MD 170 approaches run concurrently with an Exclusive/ Permissive left turn for northbound Md 170. Gate 1A operates alone.
- An eight-phase, fully-traffic-actuated ASC II local controller with telemetry and harness, detector panel, rack power supply, and one (1) rack mounted amplifier, control and distribution equipment housed in a NEMA size "6" base-mounted cabinet, shall be installed at this intersection. The opticom cabinet equipment and video interface equipment shall be relocated from the existing cabinet by the Signal Shop.

III. SPECIAL NOTES

- All field wiring to the existing controller cabinets shall be terminated to the appropriate controller cabinet connectors by the Contractor and labeled. All other controller cabinet wiring will be performed by the S.H.A. Signal Shop. Contact Mr. Ed Rodenhizer at (410) 787-7650 seventy-two hours in advance of intended work.
- The Contractor shall be responsible for terminating all signal cables, excluding interconnect, to the appropriate terminals and shall properly label each cable.

EQUIPMENT LIST (con't)

C. SHA Forces shall remove the controller and all auxiliary equipment from the controller cabinet.

The cabinet and all other materials to be removed by the contractor shall become the property of the contractor.

The contact persons for District #5 are as follows:

Mr. Lawrence Elliott
Assistant District Engineer - Traffic
Phone: (410) 841-1003

Mr. George Charles
Assistant District Engineer - Maintenance
Phone: (410) 841-1002

Mr. John Mays
Assistant District Engineer - Utility
Phone: (410) 841-1005

Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division
Phone: (410) 787-7630

Power Company Representative
Mr. Mike Malizewski
Baltimore Gas & Electric
7317 Parkway Drive
Hanover, Md 21076
Phone: (410) 859-9043

PHASE CHART

	1	2	3	4	5	6	7
PHASE 1 & 6	G	G	G	R	R	R	R
1 & 6 CHANGE	G	G	G	R	R	R	R
PHASE 2 & 6	G	G	G	G	G	R	R
2 & 6 CHANGE	Y	Y	Y	Y	Y	R	R
PHASE 4 & 8	R	R	R	R	R	G	G
4 & 8 CHANGE	R	R	R	R	R	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY M.S.H.A.

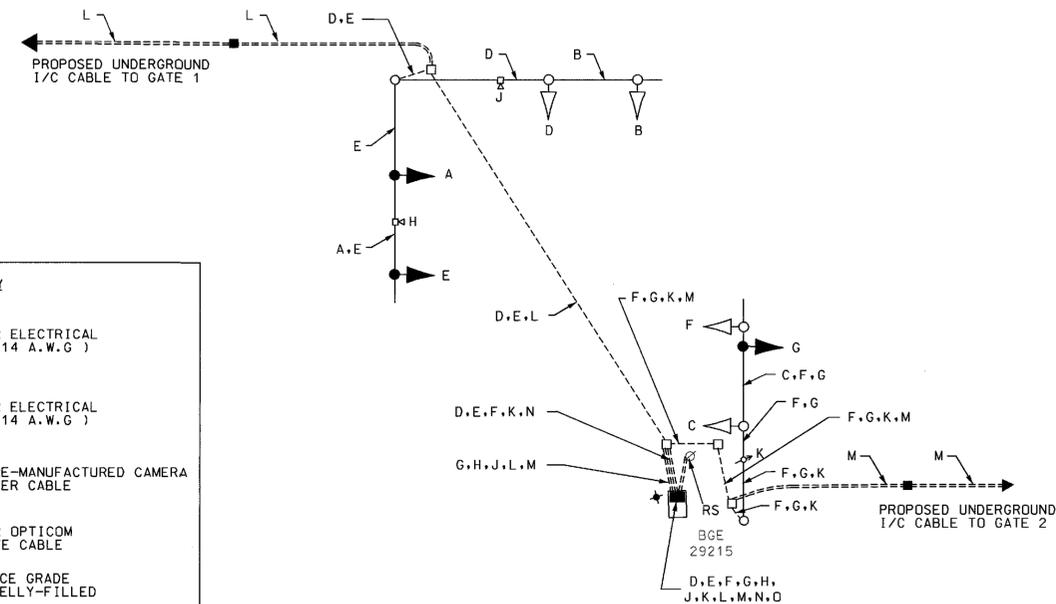
ITEM NO.	QUANTITY	UNIT	DESCRIPTION
9000	1	EA	Eight-phase, full-traffic-actuated, ASC II local controller with telemetry and harness, detector panel, rack power supply and one (1) rack mounted amplifier housed in NEMA size "6" base-mounted cabinet.

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
2001	2.5	CY	Class 2 Excavation.
6004	200	SF	4" concrete sidewalk.
8011	10	EA	Furnish and install 12" vehicular traffic signal head section
8019	2	EA	Furnish and install 8" vehicular traffic signal head section.
8022	1	EA	Electrical utility service control and distribution equipment (120/240 Volts).
8054	360	LF	3" PVC conduit-trenched.
8056	45	LF	4" PVC conduit-trenched.
8061	2	CY	Concrete for signal foundation.
8063	160	LF	4-conductor opticom cable.
8066	170	LF	No. 6 AWG stranded bare copper ground wire.
8074	20	LF	1-conductor (No. 4 AWG) electrical cable (THHN/THWN).
8076	2	EA	Electrical handhole.
8083	1	EA	Ground rod - 3/4 inch diameter x 10 foot length.
8087	60	LF	Electrical cable - 5 conductor (No 14 AWG).
8088	745	LF	Electrical cable - 7 conductor (No 14 AWG).
8096	1	EA	Install base-mounted cabinet with controller.



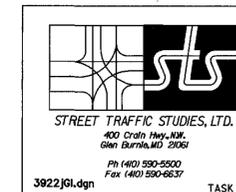
WIRING DIAGRAM



WIRING KEY

A	} 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
B	
C	
D	} 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
E	
F	
H	} REROUTED PRE-MANUFACTURED CAMERA TO CONTROLLER CABLE
J	
K	} 4-CONDUCTOR OPTICOM DETECTOR EYE CABLE
L	
M	} 12 PAIR VOICE GRADE I/C CABLE; JELLY-FILLED
N	
O	} 1-CONDUCTOR (NO. 4 A.W.G.) THHN/THWN ELECTRICAL CABLE
P	
RS	RELOCATED UNDERGROUND SERVICE BY BGE
+	GROUND ROD

The quantities for Gate 1A's reconstruction are included in the quantities on the System General Information Sheet No. 21 of 21.



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
MD 170 & GATE 1A OF NORTHROP GRUMMAN

GENERAL INFORMATION

DRAWN BY: EMM	F.A.P. NO.	TS NO.
CHECKED BY: RRZ	S.H.A. NO. AA2837521852	1028-D
SCALE: NONE	COUNTY: ANNE ARUNDEL	T.I.M.S. NO. E 451
DATE: 5-10-02	LOG MILE: 02017007.45	SHEET NO. 10 OF 23